

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended) An antagonist of ghrelin, wherein the antagonist is a nucleic acid which specifically binds to ghrelin.

Claim 2 (Currently Amended) An antagonist of the GHSR 1a receptor system which is the nucleic acid which specifically binds to ghrelin of claim 1.

Claim 3 (Original) The antagonist according to claim 1 or 2, wherein the nucleic acid comprises at least one L-nucleotide.

Claim 4 (Previously Presented) The antagonist according to claim 1 or 2, wherein the antagonist is an L-nucleic acid.

Claim 5 (Canceled)

Claim 6 (Currently Amended) A nucleic acid which specifically binds to L-ghrelin.

Claim 7 (Canceled)

Claim 8 (Previously Presented) A nucleic acid which is one of SEQ ID NO:7 to SEQ ID NO:125.

Claim 9 (Original) The nucleic acid according to claim 8, wherein the nucleic acid comprises at least one L-nucleotide.

Claim 10 (Previously Presented) The nucleic acid according to claim 8 or 9, wherein the nucleic acid is an L-nucleic acid.

Claim 11 (Currently Amended) The nucleic acid of claim 8 or 9, wherein the nucleic acid is selected from the group consisting of DNA, RNA and combinations thereof.

Claim 12 (Previously Presented) The nucleic acid of claim 8 or 9, wherein the K_d of the nucleic acid is less than 1 μM .

Claim 13 (Currently Amended) The nucleic acid of claim 8 or 9, wherein the K_d of the nucleic acid is more than ~~100~~ 0.05 nM.

Claim 14 (Previously Presented) The nucleic acid of claim 8 or 9, wherein the nucleic acid is 15 to 150 nucleotides in length.

Claim 15 (Canceled)

Claim 16 (Previously Presented) A method for making the nucleic acid of claim 6 or 8, comprising the steps:

- a) generating a heterogeneous population of nucleic acids;
- b) contacting the population of step a) with ghrelin;
- c) separating the nucleic acid(s) not interacting with ghrelin;
- d) optionally separating the nucleic acid(s) interacting with ghrelin; and
- e) optionally sequencing the nucleic acid(s) interacting with ghrelin.

Claim 17 (Previously Presented) The method according to claim 16, further comprising amplification of the nucleic acid(s) interacting with ghrelin.

Claim 18 (Original) The method according to claim 16 or 17, wherein steps b) to d) are repeated.

Claim 19 (Canceled)

Claim 20 (Previously Presented) A method for making the L-nucleic acid of claim 10 comprising the following steps:

- a) generating a heterogeneous population of D-nucleic acids;
- b) contacting the population of step a) with D-ghrelin;
- c) separating the D-nucleic acid not interacting with D-ghrelin;
- d) sequencing the D-nucleic acid interacting with D-ghrelin; and
- e) synthesizing the L-nucleic acid sequence(s) which is/are identical to the sequence of the D-nucleic acid(s) obtained in step d).

Claim 21 (Previously Presented) The method according to claim 20 further comprising amplifying the D-nucleic acid interacting with D-ghrelin.

Claim 22 (Previously Presented) The method according to claim 20 or 21, characterized in that steps b) to e) are repeated.

Claim 23 (Canceled)

Claim 24 (Previously Presented) A method of treating a disorder comprising ghrelin or GHSR1a, comprising the step of administering to a patient in need of treatment the nucleic acid of claim 6 or 8, or the antagonist of claim 1 or 2.

Claim 25 (Previously Presented) The method of claim 24 wherein the disorder is selected from the group consisting of obesity; improper regulation of energy balance; improper appetite or body weight; eating disorders; diabetes; improper glucose metabolism; tumour; improper blood pressure and cardiovascular disease.

Claim 26 (Previously Presented) A composition comprising the nucleic acid of claim 6 or 8 or the antagonist of claim 1 or 2, and a pharmaceutical acceptable carrier.

Claim 27 (Previously Presented) A complex comprising ghrelin and the nucleic acid of claim 6 or 8.

Claim 28 (Canceled)

Claim 29 (Currently Amended) A method for screening for a ghrelin antagonist comprising the following steps:

[[~~-~~]]a) providing a candidate ghrelin antagonist,

[[~~-~~]]b) providing the nucleic acid according to claim 6 or 8, or the antagonist according to claim 1 or 2,

[[~~-~~]]c) providing a test system providing a signal in the presence of a ghrelin antagonist, and

[[~~-~~]]d) determining whether the candidate ghrelin antagonist is a ghrelin antagonist.

Claim 30 (Previously Presented) A kit comprising the nucleic acid of claim 6 or 8, or the antagonist of claim 1 or 2.

Claim 31 (Previously Presented) The nucleic acid of claim 12, wherein the K_d is less than 0.25 μM .

Claim 32 (Previously Presented) The nucleic acid of claim 31, wherein the K_d is less than 0.1 μM .

Claim 33 (Previously Presented) The nucleic acid of claim 32, wherein the K_d is less than 0.01 μM .

Claim 34 (Currently Amended) The nucleic acid of claim 13, wherein the K_d is more than ~~10~~ 1 nM.

Claim 35 (Currently Amended) The nucleic acid of claim 34, wherein the K_d is more than 10 nM.

Claim 36 (Currently Amended) The nucleic acid of claim 35, wherein the Kd is more than ~~0.05~~ 100 nM.

Claim 37 (Previously Presented) The nucleic acid of claim 14, wherein the nucleic acid is 20 to 100 nucleotides in length.

Claim 38 (Previously Presented) The nucleic acid of claim 37, wherein the nucleic acid is 20 to 80 nucleotides in length.

Claim 39 (Previously Presented) The nucleic acid of claim 38, wherein the nucleic acid is 20 to 60 nucleotides in length.

Claim 40 (Previously Presented) The nucleic acid of claim 39, wherein the nucleic acid is 20 to 50 nucleotides in length.

Claim 41 (Previously Presented) The nucleic acid of claim 40, wherein the nucleic acid is 30 to 50 nucleotides in length.

Claims 42-44 (Canceled)

Claim 45 (Previously Presented) The complex of claim 27, wherein said complex is crystalline.

Claim 46 (New) The nucleic acid of claim 6, comprising the sequence, CCGAAGGUAACCA, bases 25-37 of SEQ ID NO:8.

Claim 47 (New) The nucleic acid of claim 6, comprising the sequence, UAAGUCCGAAGGUAACCA, bases 20-37 of SEQ ID NO:8.

Claim 48 (New) The nucleic acid of claim 6, comprising the sequence, CCGAAGGUAACCAUCCUAC, bases 25-44 of SEQ ID NO:8.

Claim 49 (New) The nucleic acid of claim 6, comprising the sequence, UAAGUCCGAAGGUAACCAUCCUAC, bases 20-44 of SEQ ID NO:8.